Merenkulkuhallitus

TIEDOTUSLEHTI NRO 14/15.8.1995

PILSSIVESISEPARAATTORIEN, PILSSIVEDEN SUODATUSLAITTEIDEN, ÖLJYPITOISUUSMITTARIEN JA PILSSIVESIHÄLYTTIMIEN TYYPPIHYVÄKSYMINEN

Kansainvälisen merenkulkujärjestön IMO:n Meriympäristön suojelukomitea on 30.10.1992 päätöslauselmalla MEPC.60(33) antanut uudet määräykset alusten konehuoneiden pilssivesiseparaattorien, pilssiveden suodatuslaitteiden, öljypitoisuusmittarien ja pilssivesihälyttimien tyyppihyväksymisestä.

Pilssivesiseparaattoreita, pilssiveden suodatuslaitteita, öljypitoisuusmittareita ja pilssivesihälyttimiä, jotka on tyyppihyväksytty IMO:n päätöslauselman A.393(X) mukaisesti, ei saa enää asentaa aluksiin 31.12.1995 jälkeen. Aluksiin ennen 31.12.1995 asennettuja, päätöslauselman A.393(X) mukaisesti tyyppihyväksyttyjä laitteistoja ei kuitenkaan tarvitse vaihtaa päätöslauselman MEPC.60(33) mukaisesti tyyppihyväksyttyihin laitteistoihin.

Säiliöalusten öljyisen veden käsittelyjärjestelmiin asennettavat öljypitoisuusmittarit hyväksytään edelleen IMO:n päätöslauselman A.586(14) "Revised Guidelines and Specifications for Oil Monitoring and Control Systems for Oil Tankers" mukaisesti.

Tyyppihyväksymismenettely

Edellä mainittujen laitteistojen tyyppihyväksymistä haetaan merenkulkuhallitukselta. Hakemukseen on liitettävä seuraavat asiakirjat ja selvitykset:

1. Selvitys niiden laitteiden tehoista ja tyypeistä, joille hyväksymistä haetaan.
2. Esite laitteesta.
3. Laitteiston ja sen toiminnan määrittämiseksi tarpeelliset piirustukset.
4. Konehuoneiden laitteistojen koetulokset esitettyinä oheisten liitteiden mukaisesti
   - pilssivesiseparaattorit ja/tai pilssiveden suodatuslaitteet (liite 1)
   - pilssivesihälyttimet ja öljypitoisuusmittarit (liite 2).
5. Säiliöalusten öljypitoisuusmittareiden ja hälyttimien koetulokset esitettyinä oheisen liitteen mukaisesti
   - öljypitoisuusmittarit ja hälyttimet (liite 3).
6. Kopiot muiden maiden, erityisesti EU:n jäsenvaltioiden antamista tyyppihyväksymistodistuksista.
7. Mallikappale alukselle toimitettavasta käyttöohjekirjasta.

Tätä julkaisua myy: Merenkulkuhallitus Tilastotoimisto | Osoite Vuorimiehenkatu 1 Helsinki | Postiosoite PL 158 00141 Helsinki | Puhelin (90) 18 081 | Telekopio (90) 1808 355

Hakemus liitteineen on toimitettava merenkulkuhallitukselle osoitteella:

Merenkulkuhallitus
Alustekninen toimisto
Vuorimiehenkatu 1,
PL 158, 00141 Helsinki

(merenkulkuhallituksen uusi osoite
syksystä 1996 lähtien:
Porkkalankatu 5,
PL 171, 00181 Helsinki).

Laitteiston tyyppihyväksyminen ei edellytä Suomessa tai suomalaisten viranomaisten valvonnassa tehtyjä kokeita, mutta merenkulkuhallituksen tulee voida varmistautua kokeiden oikeellisuudesta. Jos laitteisto on uusi, on koeraportti toimitettava merenkulkuhallitukselle alkuperäisenä tai oikeaksi todistettuna kopiona. Mikäli on aihetta epäillä kokeiden oikeellisuutta tai laitteiston suorituskykyä, voi merenkulkuhallitus vaatia suoritettavaksi uudet kokeet hyväksymässään laboratoriossa. Merenkulkuhallituksen edustajalle on tällöin varattava tilaisuus seurata kokeita.

Tyyppihyväksymistodistuksesta peritään erikseen säädetty maksu.

Luettelo tyyppihyväksytyistä laitteistoista julkaistaan merenkulkuhallituksen tiedotuslehdessä. Tiedotuslehdessä nro 9/15.10.1992 mainittuja laitteistoja, jotka on hyväksytty IMO:n päätöslauselman A.393(X) mukaisesti, ei saa enää asentaa aluksiin 31.12.1995 jälkeen. IMO:n päätöslauselman A.586(14) mukaisesti hyväksyttyjä laitteistoja saa edelleen asentaa säiliöaluksiin.

Merenkulkuosaston päällikkö
merenkulkuneuvos — Heikki Valkonen

Toimistoinsinööri — Jorma Kämäräinen

Asiaa koskevat tiedustelut: — Alustekninen toimisto

Tämä tiedotuslehti
korvaa tiedotuslehden: — 11/9.6.1986

Dnro 2/30/95
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APPENDIX

TEST DATA AND RESULTS OF TESTS CONDUCTED ON A FILTERING EQUIPMENT IN ACCORDANCE WITH PART 1 OF THE ANNEX TO THE GUIDELINES AND SPECIFICATIONS CONTAINED IN IMO RESOLUTION MEPC...(33)

Equipment submitted by .....

Test location .....

Method of sample analysis .....

Samples analysed by .....

Environmental testing of the electrical and electronic sections of the equipment has been carried out in accordance with part 3 of the annex to the Guidelines and Specifications contained in IMO resolution MEPC...(33). The equipment functioned satisfactorily on completion of each test specified on the environmental test protocol.

Manufacturers' recommendations and information concerning the use of cleansing agents .....

Test oil (A)/(C)*	
Relative density	at 15°C
Viscosity	Centistokes at 100°C
	Centistokes at 37.8°C
Flashpoint	°C
Ash content	%
Water content at start of test	%
Test oil (B)	
Relative density	at 15°C
Viscosity	Centistokes at 100°C
	Centistokes at 37.8°C
Flashpoint	°C
Ash content	%
Water content at start of test	%
Test water	
Relative density	at 15°C
Solid matter present	
Test temperatures	
Ambient	°C
Test oil (A)(C)*	°C
Test oil (B)	°C
Test water	°C

Diagram of test rig attached

Diagram of sampling arrangement attached

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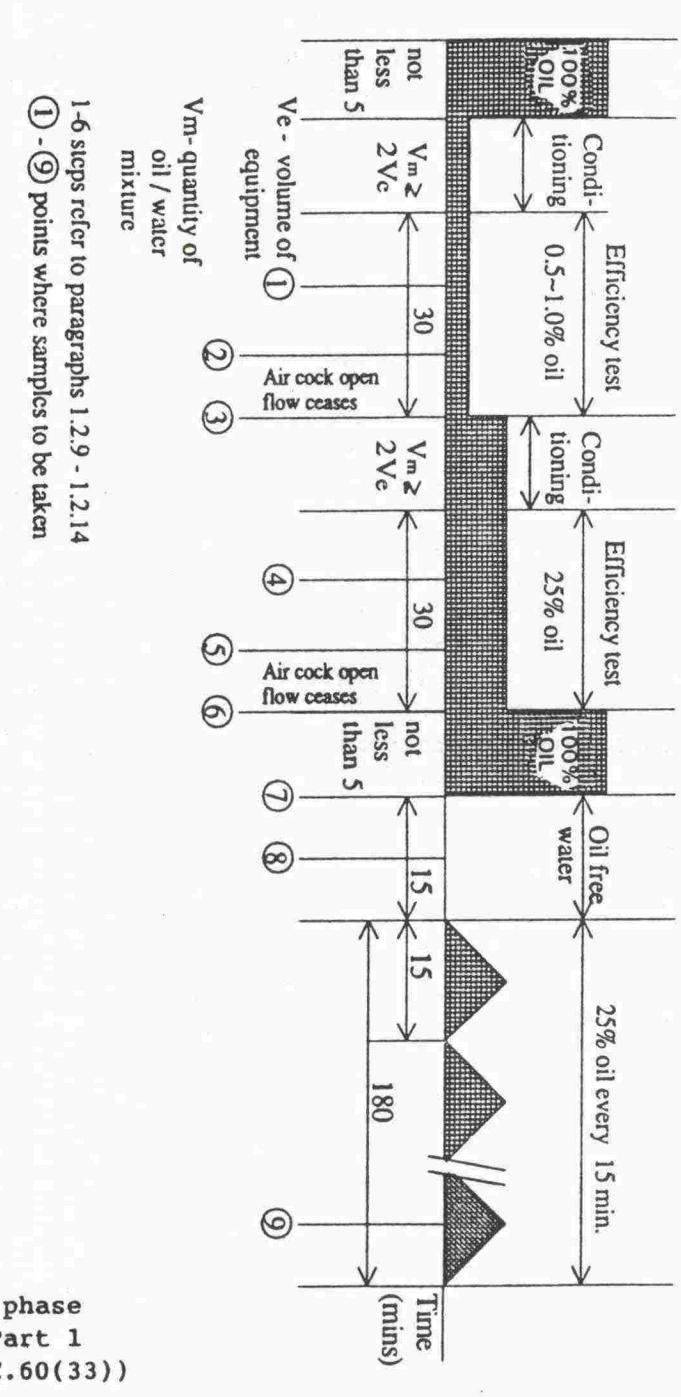
* Delete as appropriate.

TEST RESULTS (IN PPM) AND TEST PROCEDURES

Test on (A)/(C)*		Test on (B)	
Influent	Effluent	Influent	Effluent



Test sample ⑨.....

(taken at the end of final oil phase auto test, paragraph 1.2.14 - Part 1 of the Annex to resolution MEPC.60(33))

Signed ..... Date ..... Official stamp

(Official stamp or equivalent identification and the date of approval to be placed on all pages of the test protocol.)

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* Delete as appropriate

APPENDIX

TEST DATA AND RESULTS OF TESTS CONDUCTED ON AN OIL CONTENT METER IN ACCORDANCE WITH PART 2 OF THE ANNEX TO THE GUIDELINES AND SPECIFICATIONS CONTAINED IN IMO RESOLUTION MEPC...(33)

Oil content meter submitted by .....

Test location .....

Method of sample analysis .....

Samples analysed by .....

Environmental testing of the electronic section of the oil content meter has been carried out in accordance with part 3 of the annex to the Guidelines and Specifications contained in IMO resolution MEPC...(33). The equipment functioned satisfactorily on completion of each test specified on the environmental test protocol.

Manufacturers' recommendations and information concerning the use of cleansing agents .....

		READINGS (ppm)			
		Indicated	Measured	Grab sample	REMARKS
CALIBRATION	0	.....	.....	.....	
LIGHT DISTILLATE FUEL OIL	15	.....	.....	.....	
		.....	.....	.....	
		.....	.....	.....	
FULL SCALE		.....	.....	.....	TEST WATER TEMPERATURE °C
		.....	.....	.....	RE-ZERO YES/NO* RECALIBRATE YES/NO*

RESPONSE TIMES 15 ppm ... seconds

CONTAMINANTS TEST

1 Non-oil particulate matter

Meter reading shift with ppm non-oil particulate contaminants mixed with water and light distillate oil added in oil concentrations of:

- ppm ... ppm
- ppm ... ppm
- ppm ... ppm

COLOUR TEST
2.5 ppm black ink test pass/fail*

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* Delete as appropriate

SAMPLE PRESSURE OR FLOW TEST

Meter reading shift at 50% of normal ... ppm

Meter reading shift at 200% of normal ... ppm

Deviations from this test should be stated if necessary

Meter reading before shut-off ... ppm

Meter reading after start-up (minimum dry period 8 hours) ... ppm

Damage to meter as follows:

.....

.....

.....

.....

UTILITIES SUPPLY VARIATION TEST

110% voltage effects .....

90% voltage effects .....

110% air pressure effects .....

90% air pressure effects .....

110% hydraulic pressure effects .....

90% hydraulic pressure effects .....

OTHER COMMENTS

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CALIBRATION AND ZERO TEST

Calibration drift ... ppm

Zero drift ... ppm

Signed Date Offical stamp

(Official stamp or equivalent identification and the date of approval to be placed on all pages of the test protocol)

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APPENDIX

TEST DATA AND RESULTS OF TESTS CONDUCTED ON AN OIL CONTENT METER IN ACCORDANCE WITH PART 1 OF THE ANNEX TO THE GUIDELINES AND SPECIFICATIONS CONTAINED IN IMO RESOLUTION A.586(14)

Oil content meter submitted by .....

Test location .....

Method of sample analysis .....

Samples analysed by .....

Environmental testing of the electronic section of the oil content meter has been carried out in accordance with part 2 of the Annex to the Guidelines and Specifications contained in IMO resolution A.586(14). The equipment functioned satisfactorily on completion of each test specified on the environmental test protocol.

		READINGS (ppm)			
		Indicated	Measured	Grab sample	REMARKS
CALIBRATION	0	.....	.....	.....	
	15	.....	.....	.....	
	50	.....	.....	.....	
	100	.....	.....	.....	
	200	.....	.....	.....	
	400	.....	.....	.....	
	600	.....	.....	.....	
	800	.....	.....	.....	TEST WATER TEMPERATURE °C
	1000	.....	.....	.....	RE-ZERO YES/NO*
		.....	.....	.....	RECALIBRATE YES/NO*
OIL TYPE RESPONSE TESTS Sahara blend					
	15	.....	.....	.....	
	100	.....	.....	.....	
90% M.F.S.V. =		.....	.....	.....	
RECORDED ZERO		.....			RE-ZERO YES/NO* TIME mins RECALIBRATE YES/NO* TIME mins CLEAN YES/NO* TIME mins
Arabian light crude					
	15	.....	.....	.....	
	100	.....	.....	.....	
90% M.F.S.V. =		.....	.....	.....	
RECORDED ZERO		.....			RE-ZERO YES/NO* TIME mins RECALIBRATE YES/NO* TIME mins CLEAN YES/NO* TIME mins

M.F.S.V. = MAXIMUM FULL SCALE VALUE

* Delete as appropriate

	READINGS (ppm)			REMARKS
	Indicated	Measured	Grab sample	
Nigerian medium crude				
15	.....	.....	.....	
100	.....	.....	.....	
90% M.F.S.V. =	.....	.....	.....	
RECORDED ZERO	.....			RE-ZERO YES/NO* TIME mins RECALIBRATE YES/NO* TIME mins CLEAN YES/NO* TIME mins
Bachaquero 17 crude				
15	.....	.....	.....	
100	.....	.....	.....	
90% M.F.S.V. =	.....	.....	.....	
RECORDED ZERO	.....			RE-ZERO YES/NO* TIME mins RECALIBRATE YES/NO* TIME mins CLEAN YES/NO* TIME mins
Minas crude				
15	.....	.....	.....	
100	.....	.....	.....	
90% M.F.S.V. =	.....	.....	.....	
RECORDED ZERO	.....			RE-ZERO YES/NO* TIME mins RECALIBRATE YES/NO* TIME mins CLEAN YES/NO* TIME mins

* Delete as appropriate

		READINGS (ppm)			
		Indicated	Measured	Grab sample	REMARKS
Residual fuel					
	15	.....	.....	.....	
	100	.....	.....	.....	
90% M.F.S.V. =		.....	.....	.....	
RECORDED ZERO		.....			RE-ZERO YES/NO* TIME mins RECALIBRATE YES/NO* TIME mins CLEAN YES/NO* TIME mins
Automotive gasoline					
	15	.....	.....	.....	
	100	.....	.....	.....	
90% M.F.S.V. =		.....	.....	.....	
RECORDED ZERO		.....			RE-ZERO YES/NO* TIME mins RECALIBRATE YES/NO* TIME mins CLEAN YES/NO* TIME mins

* Delete as appropriate

		READINGS (ppm)			REMARKS	
		Indicated	Measured	Grab sample		
Kerosene						
	15	.....	.....	.....		
	100	.....	.....	.....		
90% M.F.S.V. =		.....	.....	.....		
RECORDED ZERO		.....			RE-ZERO	YES/NO*
					TIME	mins
					RECALIBRATE	YES/NO*
					TIME	mins
					CLEAN	YES/NO*
					TIME	mins
Light diesel fuel						
	15	.....	.....	.....		
	100	.....	.....	.....		
90% M.F.S.V. =		.....	.....	.....		
RECORDED ZERO		.....			RE-ZERO	YES/NO*
					TIME	mins
					RECALIBRATE	YES/NO*
					TIME	mins
					CLEAN	YES/NO*
					TIME	mins

Note: If alternative oils covering the same range of properties as the crude oils listed are used, these should be substituted where applicable.

* Delete as appropriate

OIL-LIKE NOXIOUS LIQUID SUBSTANCES, OTHER PRODUCTS OR APPLICATIONS*

	READINGS (ppm)			
	Indicated	Measured	Grab sample	REMARKS
Name of product				
..... 15	.....	.....	.....	
100	.....	.....	.....	
90% M.F.S.V. =	.....	.....	.....	
RECORDED ZERO	.....			RE-ZERO YES/NO** TIME mins RECALIBRATE YES/NO** TIME mins CLEAN YES/NO** TIME mins
Name of product				
..... 15	.....	.....	.....	
100	.....	.....	.....	
90% M.F.S.V. =	.....			
RECORDED ZERO	.....			RE-ZERO YES/NO** TIME mins RECALIBRATE YES/NO** TIME mins CLEAN YES/NO** TIME mins

* This page should be included in the certificate only if the oil content meter has been tested against category C or D oil-like noxious liquid substances.

** Delete as appropriate.

RESPONSE TIMES

		seconds
First detectable reading		.....
	63 ppm	..... ①
Stabilized maximum reading	..... ppm	.....
First detectable drop		.....
	37 ppm	..... ②
Stabilized minimum reading	..... ppm	.....
RESPONSE TIME = $\frac{① + ②}{2}$ =		.....

OIL FOULING AND CALIBRATION SHIFT

10% oil concentration test

First detectable response		.....
	100 ppm	.....
Off scale on highest range		.....
On scale on highest range		.....
	100 ppm	.....
Minimum reading	..... ppm	.....
Further cleaning required YES/NO* (State extent)		
Time ..... mins		

100% oil concentration test

		seconds
First detectable response		.....
	100 ppm	.....
Off scale on highest range		.....
On scale on highest range		.....
	100 ppm	.....
Minimum reading	..... ppm	.....
Further cleaning required YES/NO* (State extent)		
Time ..... mins		
Calibration shift	..... ppm	

* Delete as appropriate.

CONTAMINANTS TEST

Meter reading shift with 300 ppm non-oil contaminants mixed with water and Arabian light crude oil added in oil concentrations of:

- 15 ppm ..... ppm
- 100 ppm ..... ppm
- 300 ppm ..... ppm

Meter reading shift with 1% air entrained in water and Arabian light crude oil added in concentrations of:

- 15 ppm ..... ppm
- 100 ppm ..... ppm
- 300 ppm ..... ppm

OIL PARTICLE SIZE TEST

Meter reading shift ..... ppm

TEMPERATURE TEST

Calibration test water temperature ..... °C

Meter reading shift at 10°C ..... ppm

Meter reading shift at 65°C ..... ppm

SAMPLE PRESSURE OR FLOW TEST

Meter reading shift at 50% of normal ..... ppm

Meter reading shift at 200% of normal ..... ppm

Deviations from this test should be stated if necessary

Meter reading before shutoff ..... ppm

Meter reading after start-up
(minimum dry period 8 hours) ..... ppm

Damage to meter as follows:

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* Delete as appropriate.

UTILITIES SUPPLY VARIATION TEST

110% voltage effects .....

90% volatage effects .....

110% air pressure effects .....

90% air pressure effects .....

110% hydraulic pressure effects .....

90% hydraulic pressure effects .....

OTHER COMMENTS

CALIBRATION AND ZERO TEST

Calibration drift ..... ppm

Zero drift ..... ppm

SHUTDOWN AND RE-ENERGIZATION TEST

Span drift ..... ppm

Zero drift ..... ppm

Time for warm-up and calibration ..... mins

Signed *Date* *Official stamp*

(Official stamp or equivalent identification and the date of approval to be placed on all pages of the test protocol)

MERENKULKULAITOKSEN KARTTAPAINO
HELSINKI 1995